

# Forecast Update, May 31 2011

Submitted by sgiangrande on Tue, 05/31/2011 - 15:09

- [Central Facility](#)

Cold front passing through the region associated with a weak convective line over north central Oklahoma expected to stall over the center of the state, perhaps just along I44 or slightly south. Most forecasting models have backed away at the 06-12Z time frame from precipitation firing along this weakening boundary as it migrates northward (as a warm front) into Kansas mid afternoon into evening hours; Within the moist (southern to southeast Oklahoma) sector where dew points remain high and surface temperatures to exceed mid 80s with decent return flow, this region in Oklahoma still sufficient for some modest cumulus cloud development and coverage - however, cloud coverage over PNC region and north of front will be limited for much of the earlier parts of the day Tuesday. Most precipitation is expected to emphasize regions of western Texas panhandle where higher surface temperatures/moisture return/clear conditions / CAPE and similar frontal location with some upslope flow in west Texas more immediately suitable for convection to fire. Most 12 Z models were expecting later afternoon initiation near Lubbock, but presently it is still somewhat unclear if this firing is associated more immediately with the surface front and daytime heating, a passing shortwave trough (not visible at forecast time), or some combination of both as for the exact timing of the best precipitation in Texas panhandle. Both GFS and NAM hinted at this shortwave trough, and most forecast offices in the region as well as SPC providing additional confidence in these model solutions. Expect some eastward propagation of this precipitation potentially into the Oklahoma domain by early Wednesday morning, but somewhat expecting this wave to be the 'early' show - Models continue to kick off additional/new precipitation throughout the day / early afternoon on Wednesday, again associated with this same shortwave trough feature as well as decent moisture return northward into Kansas, near campaign facilities. Ridging pattern should limit precipitation by early Thursday.

## Forecasts

Time of Day:

Morning

Day 0:

05/31/2011

Forecast for Day 0:

Relatively clear skies following the passage of the cold front and its stalling south of the SGP CF domain. Limited chance for precipitation firing along the warm front as it migrates northward into the region later in the afternoon, but possible building of cloud coverage over the Central facility by later in the afternoon.

Day 1:

06/01/2011

Forecast for Day 1:

Two possible waves of precipitation of interest, contingent on firing of afternoon to evening showers in west Texas that evolve into the overnight hours into Wednesday. First wave may be directly associated with any convection that fires along the warm front early morning hours and migrates over the facility or southern Oklahoma. GFS solution more consistent with this pattern as of the earlier runs, NAM tending to eliminate this threat well before it reaches the SGP vicinity. Second opportunity would be continued convection to fire near north central Oklahoma and into Kansas, also associated with some daytime heating support and a passing shortwave trough. This precipitation is less likely and potentially more sporadic for coverage than west Texas option, but has the better chance to interact with campaign facilities. It is possible that both situations are plausible with respect to precipitation morphology, e.g., firing happens overnight and precipitation continues to linger throughout the

morning into early afternoon.

Day 2:

06/02/2011

Forecast for Day 2:

Ridging over central Oklahoma should limit chances for precipitation over the key platforms. Models predict some chance for upper-level ice clouds over the northern parts of the state.

Extended Outlook:

Relatively clear conditions for precipitation.